

# Pneumonia in Neonate Canines

Pneumonia is an infection of the lungs, leading to the inflammation of the airways and excessive amounts of mucus build up. This is all an effort of the immune system to rid the body of a foreign contaminate. Perhaps you can see how a bunch of mucus buildup conensingung with lung inflammation which causes restricted airways, might escalate quickly into a problematic situation, and this is especially dangerous to the underdeveloped, tiny lungs and immature immune system of the neonate canine. This infection can effect one or more lobes of the lungs (called Lobar Pneumonia) or it may effect the lungs in patches (known as Bronchial Pneumonia). Pneumonia can come from a variety of sources and can be; viral, bacterial, mycoplasma, as well as a few cases coming from unknown causes. For our report we will be focusing on Bacterial and Viral Pneumonia. In the neonate canine, pneumonia can cause death in just hours, from onset of symptoms, which is why it constitutes such a large percentage of neonate deaths. Treatment and prevention of pneumonia is dependent on the underling causes.

Bacterial Pneumonia, as the name indicates is causes by bacteria that invades the lungs. Some of the most common bacterial infections come from *Bordetella bronchiseptica*, *Streptococcus zooepidemicus*, *Pasteurella multocida*, *Pseudomonas aeruginosa*, *Klebsiella pneumoniae*, *E. coli* and *Mycoplasma* species. Symptoms include increased temperature, coughing, lethargy, runny nose, dull eyes, little or no appetite, and a change in breathing rate, low blood oxygen levels leading to a bluish tint to gums. If the condition persists, the dog may suffer anorexia or severe dehydration in extreme cases. Odds increase with very young or very old dogs. Bacterial Pneumonia is easily treated with antibiotics if you can identify the bacteria, but even with no identification there are many broad spectrum antibiotics available that will target a large rage of either gram positive or gram negative bacteria.

Viral Pneumonia, again as the name indicates, comes from a viral source. Some of the leading causes of Viral Pneumonia are *Canine distemper virus*, *adenovirus types 1 and 2*, *canine influenza virus*, and *parainfluenza virus*. Once infected, Viral Pneumonia is not able to be treated, other than to support the bodies immune response. This will include temperature perimeters being met, sufficient sanitation, adequate fluid and nutrient intake, vitamin and electrolyte supplementation as well as immune support like vitamin C, B12, echinacea and other immune supportive and antioxidants rich supplements. Prevention is the main way to avoid viral Pneumonia cases, and there are many antiviral shots available that cover the main viral stands, many of the shots can be found that not only include nation wide problematic viruses like Parvo, but also geographically located viruses like certain strains of canine influenza. If these shots are administered within 6 months of birthing the antibody levels in the mothers milk will be at its highest levels to convey the antibodies through passive immunity to her puppies in the fist 24 hours of life. Shots given years in advance of a litter will still impart some amount of immunities in the puppies but are often found at much lower values than recently vaccinated bitches.

Presentation of viral Pneumonia is the same as presentation of bacterial pneumonia.

## References

Managing puppies with pneumonia (Proceedings)

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Viral Pneumonia

<https://www.webmd.com/lung/viral-pneumonia-lung-infection>

What Is Viral Pneumonia?

<https://www.webmd.com/lung/viral-pneumonia>

Pneumonia in Dogs

By Ned F. Kuehn, DVM, MS, DACVIM, Section Chief, Internal Medicine, Michigan Veterinary Specialists

Neil W. Dyer, DVM, MS, DACVP, Director and Pathologist, Veterinary Diagnostic Laboratory, North Dakota State University

Joe Hauptman, DVM, MS, DACVS, Professor of Surgery, Veterinary Teaching Hospital, Michigan State University

Steven L. Marks, BVSc, MS, MRCVS, DACVIM, Clinical Professor of Emergency and Internal Medicine; Associate Dean and Director of Veterinary Medical Services, North Carolina State College of Veterinary Medicine

Stuart M. Taylor, PhD, BVMS, MRCVS, DECVP,

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Pneumonia

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Canine Influenza

Last Full Review: November 2015 Minor Updates: February 2016

[http://www.cfsph.iastate.edu/Factsheets/pdfs/canine\\_influenza.pdf](http://www.cfsph.iastate.edu/Factsheets/pdfs/canine_influenza.pdf)